



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

John A. Volpe
National Transportation
Systems Center

ADMINISTRATIVE RECORD

Kendall Square
Cambridge, Massachusetts 02142

June 7, 2001

Mr. Paul Peronard
On-Scene Coordinator
Environmental Protection Agency
999 18th Street, Suite 500, 8EPR-ER
Denver, CO 80202-2466

Subject: Transportation and Disposal Plan (May 9, 2001)

Dear Mr. Peronard,

Enclosed is the Draft Transportation and Disposal Plan for the Libby Asbestos Project. The Volpe Center is in the process of finalizing the document and will forward a final copy to you for your records when it is complete. A final copy will also be sent to the EPA Libby Storefront for the Administrative Record.

We appreciate the opportunity to assist you in this and future Libby Asbestos Project efforts. Should you have any questions, please call me at (617) 494-2574.

Sincerely,

John McGuiggin, PE
Project Manager

cc: Duc Nguyen/EPA
File/T&D Plan

EPA Time Critical Asbestos Removal Action Libby, Montana Draft Transportation and Disposal (T&D) Plan - May 9, 2001

ADMINISTRATIVE RECORD

Section 1 – Introduction

1.1 Background

The Environmental Engineering Division (DTS-33) of the John A. Volpe National Transportation Systems Center (Volpe Center) is providing environmental engineering and contaminant removal support to Region 8 of the U.S. Environmental Protection Agency (EPA). The Volpe Center and their contractor, CDM Federal Programs Corporation (CDM), and its subcontractor, Pacific Environmental Services, Inc. (PES), along with the Volpe Center's removal/demolition contractor, Marcor Remediation Inc. (MARCOR), have been requested to prepare a Transportation and Disposal (T&D) Plan for the Libby asbestos project in Libby, Montana. The Volpe Center is functioning as coordinator of this effort, consolidating information provided by CDM, PES, and MARCOR. EPA is conducting a time critical asbestos removal action in Libby, Montana.

1.2 Project Understanding

CDM understands the scope of this assignment is to provide a T&D plan for the transport and disposal of asbestos contaminated soils, demolition debris, tree cuttings and stumps, and related materials from various sites in Libby, Montana. This report identifies the primary locations from which the materials described above will be removed. In addition to the specific sites identified in this T&D plan, EPA may identify additional sites in the future from which similar materials will need to be transported and disposed at the abandoned mine site. This T&D plan identifies specific source sites targeted for removal activities during the 2001 construction season. Additional sites such as schoolyards, playgrounds, and athletic fields located in Libby, Montana are also scheduled for removal actions over the next few months. Other items included in this plan are:

- Specific Background Information for Each Site
- Transportation Logistics
- Decontamination Logistics
- Dust Control Responsibilities and Logistics

- Traffic Control and Signage
- Security

1.3 General Description of the T&D Objectives

The transport and disposal of materials from various removal actions is planned for a one shift per day basis. Each shift will last ten hours. The work will continue six days a week from Monday through Saturday. The work will take place during daylight hours. This T&D plan provides the minimum activities necessary to transport asbestos-containing materials to designated disposal locations at the abandoned mine site. All transport and disposal work will be carried out in accordance with this T&D plan, the approved project health and safety plan, and all government requirements. A project-wide health and safety plan has been prepared for all removal activities planned for 2001. Removal action work plans (RAWPs) have been prepared for the primary locations where EPA has scheduled removal activities for the 2001 construction season. Each RAWP should be referenced and used in conjunction with this T&D plan.

Section 2 - Materials to be Transported and Disposed

2.1 Sources and Description of Materials

2.1.1 Screening Plant

The former Screening Plant property is currently owned by Melvin G. and Lerah Lorene Parker. EPA has designated this property as Operable Unit 02 (OU2). This site is located on Highway 37 opposite the lower end of Rainy Creek Road (see Figure 2-1). Historically, this site was used by the mine's operators to sort raw vermiculite by type and grade and transport it to processing, packaging, and shipping facilities. The raw vermiculite was transported by a conveyor over the Kootenai River to the former railroad loading facility. Asbestos-containing soils, and other asbestos-containing materials such as demolition debris, reinforced concrete, asphalt pavement, steel and other metals, tree cuttings, and stumps found on this site will be hauled directly from this site to the EPA approved disposal sites at the abandoned mine. Details of the planned removal action at OU2 can be found in the Screening Plant RAWP.

OU2 will be used as a general staging and sorting area by the Volpe Center's removal contractor.

2.1.2 KDC Flyway Property

The Kootenai Development Company (KDC) property is located directly south of the Screening Plant site and is known as the KDC Flyway property (see Figure 2-1). A pump house located on the Flyway property was used by the mine's owner to pump water from the Kootenai river to the mine site. Soil sampling results indicate that specific areas of this site have been identified to contain soils with levels of asbestos

Color Photo(s)

The following photos contain color that does not appear in the scanned images.

To view the actual images please contact the Superfund Record Center at (303) 312-6473.

Libby, Montana

Figure 2-1

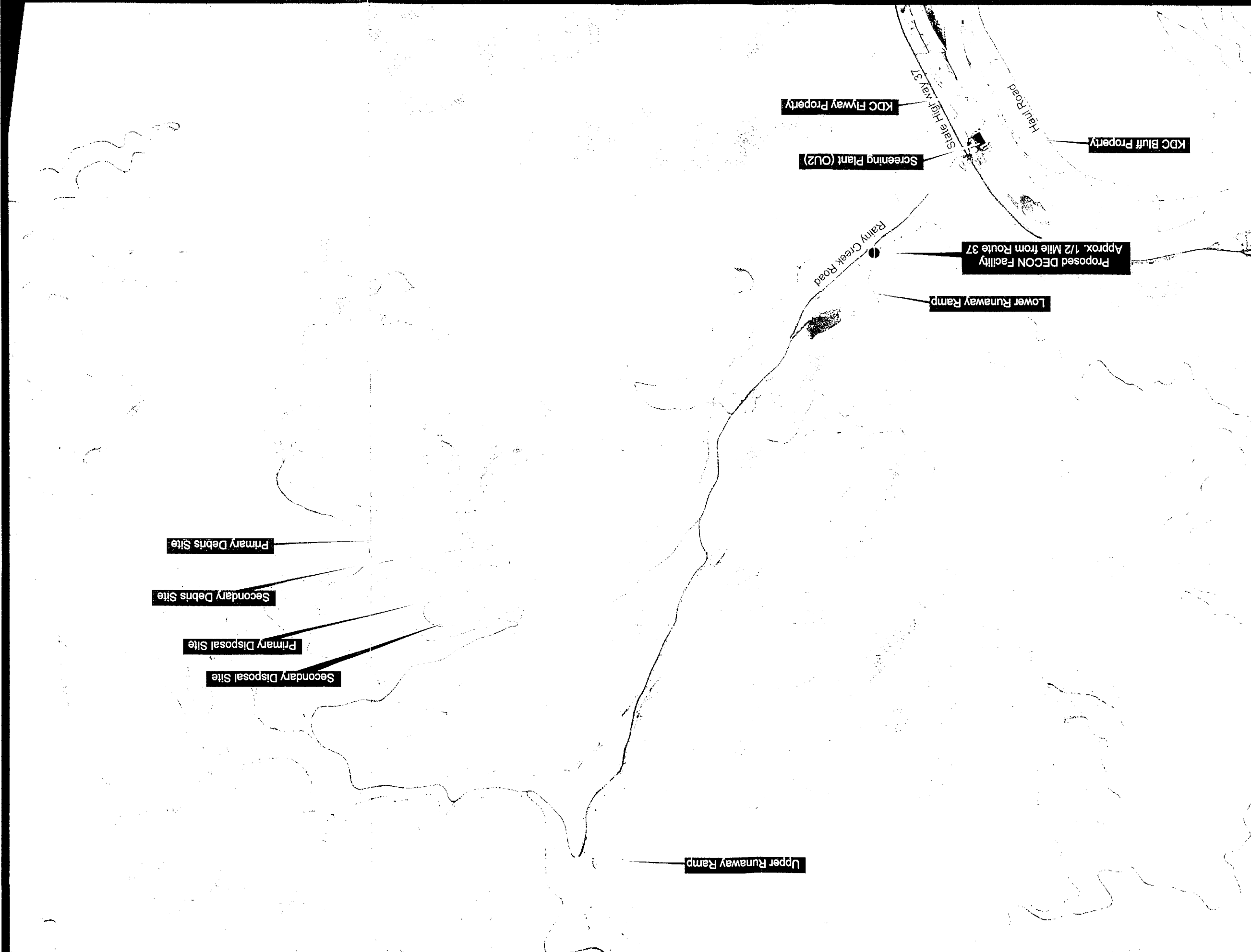
**General Removal, Transport
and Disposal Map**

- ✓ Top Ridge Above Primary Disposal Site
- Disposal Sites
- Debris Sites
- Runaway Ramps

May 9, 2001
Map Projection UTM Zone 11 NAD83 FT
N
W
E

CDM
Federal Programs Corporation

1 Inch = 2000 Feet
0 2000



exceeding project cleanup criteria, thus requiring removal. Asbestos-containing soils, asphalt pavement, tree cuttings, and stumps found on this site will be hauled directly from this site to the Screening Plant site and then to the EPA approved disposal sites at the abandoned mine. The pump house will remain on the property. Details of the planned removal action at KDC Flyway property can be found in the RAWP for this site.

2.1.3 KDC Bluff Property

The KDC Kootenai Bluff Subdivision is located directly west across the Kootenai River from OU2 (see Figure 2-1). This property was formerly used by the mine's operator as a railroad loading facility, receiving raw vermiculite from the conveyor originating at OU2. There is an easement through the property for the active railroad track. Spillage or dumping of vermiculite likely occurred on the property. This property has been designated as the Kootenai Bluff property. The Kootenai Bluff property consists primarily of undeveloped land; however, some underground utilities have been installed as initial development of the subdivision. Soil sampling results indicate that specific areas of this site have been identified to contain soils with levels of asbestos exceeding project cleanup criteria, thus requiring removal. The upper elevation of this property contains areas confirmed to contain asbestos contaminated soils. The lower elevation of this property includes the railroad track easement, a river bank and an earth bank sloping upward from the railroad track bed to the subdivision lots. Asbestos-containing soils, tree cuttings, and stumps will be hauled directly from the upper elevation of this site to the mine disposal site, or to the Screening Plant site, and then to the EPA approved disposal sites at the abandoned mine. Removal actions on the track bed, the river bank and the earth bank are not planned at this time. Details of the planned removal action at the KDC Bluff property can be found in the RAWP for this site.

2.1.4 Public/Education Facilities in Libby

Soil sampling results indicate that a number of public/educational facilities in Libby were found to contain soils with asbestos levels exceeding project cleanup criteria thus requiring removal. Asbestos-containing materials will be removed from these identified facilities such as athletic fields, running tracks and playgrounds throughout the town of Libby and transported either directly to the mine site for disposal or to the Screening Plant staging area for sorting prior to disposal.

2.2 The Disposal Site

2.2.1 The Mine Site

The mine site is located approximately 6.6 miles up Rainy Creek Road from Highway 37 (see Figure 2-1). Historically, this site was the origin of raw vermiculite materials. EPA has identified separate primary and secondary disposal locations for asbestos-containing soils and all other materials removed from selected locations in Libby at the mine site. All asbestos contaminated materials that are part of the EPA's removal action in Libby are planned to be disposed at the mine site.

Section 3 - Decontamination

3.1 General

The Volpe Center's removal contractor will be required to provide personnel and equipment decontamination facilities at OU2, the KDC Bluff property and on Rainy Creek Road. Mobile equipment and personnel decontamination facilities will be provided by the removal contractor at each public educational removal location. All decontamination facilities shall meet or exceed applicable OSHA requirements. Each equipment decontamination facility shall be sized for the largest vehicle or piece of equipment to be decontaminated there. Each decontamination facility shall be provided with full engineering controls including, but not limited to, employee personal protective equipment, fences, signs, traffic tape, clean zones and exclusion zones. The removal contractor will be required to provide water, heat, lighting, and electric power at each decontamination facility. All decontamination water will be collected, filtered, and tested for the presence of asbestos before being discharged.

Fixed personnel and equipment decontamination facilities shall be provided at the following locations:

- OU2 (Screening Plant)
- KDC Bluff Property
- Rainy Creek Road (one-half mile up from Highway 37)

3.1.1 Screening Plant Truck and Equipment Decontamination

Personnel and equipment decontamination facilities will be provided at OU2. Excavation of asbestos-containing soils begun in 2000 will continue during the 2001 construction season. Asbestos contaminated soils will also be removed from the riverbank at OU2. The Volpe Center's removal contractor will use OU2 as a staging and stockpile area for asbestos-containing soils and other asbestos-containing materials removed from other locations in Libby including public, educational, and recreational areas.

OU2 will be used as a staging area for contaminated soils and organic matter collected from the adjacent KDC Flyway property. Materials from the KDC Flyway property will be hauled directly to OU2 before they are hauled up Rainy Creek Road to the mine. All trucks and mechanical equipment leaving OU2 will be decontaminated on the site, before the trucks cross Highway 37 and proceed up Rainy Creek Road to the EPA approved disposal locations at the mine site.

3.1.2 KDC Bluff Property Truck and Equipment Decontamination

Decontamination facilities as described in 3.1.1 above will be located at the Kootenai Bluff property. The Volpe Center's removal contractor shall provide separate male and female decontamination facilities and rest room facilities at the KDC Bluff property. All trucks shall be decontaminated on the site, before entering the Haul Road where they will travel south on the Haul Road toward the bridge over the Fisher and Kootenai Rivers.

3.1.3 Rainy Creek Road Truck and Equipment Decontamination

It is not presently planned to locate and operate decontamination facilities at the EPA approved disposal locations at the mine site. The Volpe Center's removal contractor will provide complete equipment and personnel decontamination facilities on the north side of Rainy Creek Road approximately one-half mile above the Highway 37. The removal contractor will asphalt pave approximately one-half mile of Rainy Creek Road from Highway 37 to the Rainy Creek Road decontamination facilities. All empty trucks returning from the disposal locations at the mine site will be decontaminated at the Rainy Creek Road decontamination facilities. Once "clean," the trucks will travel the lower paved portion of Rainy Creek Road to Highway 37.

3.1.4 Personnel Decontamination

The Volpe Center's removal contractor shall provide separate male and female decontamination facilities and rest room facilities at each decontamination location. Each personnel decontamination facilities will include separate changing, shower and dressing areas for male and female employees, government personnel assigned to the project, and government contractor employees assigned to the project. Each facility shall meet or exceed applicable OSHA requirements. Each personnel decontamination facility shall be provided with a first-aid station, full engineering controls including, but not limited to, employee personal protective equipment, fences, signs, traffic tape, clean zones and exclusion zones. The removal contractor will be required to provide sufficient water, heat, lighting, and electric power at each personnel decontamination facility. All decontamination water will be collected, filtered, and tested for the presence of asbestos before being discharged. All personnel that may come in contact with asbestos-containing material must use the decontamination facilities whenever leaving the exclusion zone and when their work shift is completed.

Section 4 - Haul Routes

4.1 Rainy Creek Road

Rainy Creek Road is a gravel surface public road that will be closed to all persons and vehicles not directly involved in the asbestos removal project when hauling operations begin. No public access will be permitted. Figure 1 provides an aerial view of Rainy Creek Road from Highway 37 to the EPA approved disposal locations at the abandoned mine site. The first one-half mile of Rainy Creek Road will be asphalt

paved prior to hauling operations. The Volpe Center's removal contractor will grade the remaining gravel portion of Rainy Creek Road prior to initiation of hauling activities and as needed throughout the 2001 construction season. Two runaway truck ramps are located along the Rainy Creek Road haul route. A decontamination station will be located at the end of the paved portion as described in Section 3.1.3 above.

The Volpe Center's removal contractor will be responsible for coordinating the movement of all trucks traveling Rainy Creek Road to and from the disposal locations at the mine site. All trucks transporting asbestos-containing soil, demolition debris, and other materials generated by the EPA's removal action in Libby to the mine site disposal locations will use Rainy Creek Road. At this time, Rainy Creek Road will remain a one lane road. The Volpe Center's removal contractor will use two-way radios to remain in constant contact with each truck while it is on Rainy Creek Road. The Volpe Center's removal contractor will be responsible for determining the number of trucks to include in the transport and disposal operations so that truck traffic runs smoothly and efficiently along the entire haul route. The Volpe Center's removal contractor will be responsible for coordinating loading, hauling, dumping, decontamination, and all related activities in an efficient manner with a minimum of down time. The Volpe Center's removal contractor shall have representatives at each site, along Rainy Creek Road and at the disposal locations at the mine site directing the traffic at all times transport and disposal operations are in progress.

4.2 Screening Plant and KDC Flyway Property

Trucks loaded directly at OU2 and at the OU2 staging area will be decontaminated prior to crossing Highway 37. The Volpe Center's removal contractor will place ½-inch thick steel plates on Highway 37 at the start of each day hauling will take place to protect the pavement and shoulders from damage due to the hauling operation. At the end of each day, the steel plates will be removed and stored in a location directed by the Engineer.

Loaded trucks leaving the KDC Flyway property will not enter Highway 37. Loaded trucks from the KDC Flyway property will travel directly to the adjacent site, OU2, where they will either be decontaminated and dispatched to Rainy Creek Road or to the OU2 staging area for unloading and stockpiling. The proximity of the KDC Flyway property to OU2 allows the loaded trucks to travel directly to the staging area at OU2, with no decontamination if returning to the KDC Flyway property. If loaded trucks are to be sent directly to the approved disposal locations at the mine site, they can be decontaminated at the OU2 decontamination facility prior to crossing Highway 37 and proceeding up Rainy Creek Road. On-site haul roads will be removed when hauling operations are complete. Haul Road materials will be disposed at the mine site.

4.3 KDC Bluff Property

Trucks loaded at the KDC Bluff property will be decontaminated before leaving the site. Following decontamination, loaded trucks will travel south on the Haul Road, cross the bridge over the Kootenai and Fisher Rivers and travel north on Highway 37 (see Figure 4-1). Once at OU2, the trucks have the option of turning right and continuing up Rainy Creek Road to the approved disposal locations at the mine site or turning left into the OU2 staging area.

4.4 Haul Road

Haul Road is the name of a paved public road. It has not been determined whether it will remain open to the public during hauling operations. In either case, all trucks traveling on this road will be decontaminated prior to leaving the KDC Bluff property and traveling on this road. Should Town of Libby officials and the government close Haul Road to non-removal traffic, flag persons, road signs and advance notice to the public will be provided.

All transport of asbestos-containing soil and other material from the KDC Bluff property will be via Haul Road rather than through the center of Libby. All Montana DOT requirements, including load limits on the Fisher River and Kootenai River bridges shall be observed during transport activities related to the KDC Bluff property.

4.5 Montana DOT Requirements

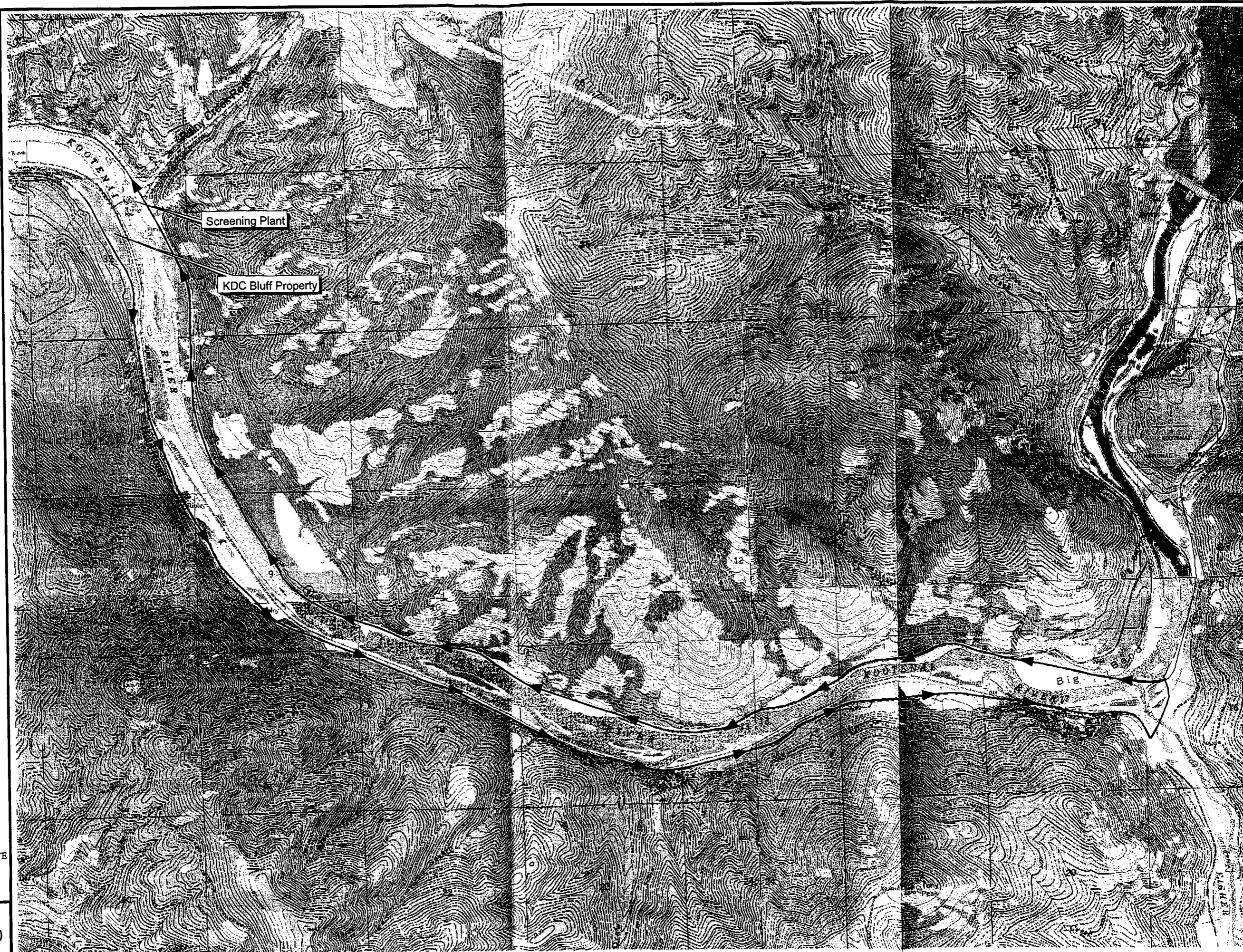
Included in this section is the traffic control plan prepared by the Volpe Center's removal contractor. The traffic control plan includes signage and speed limit restrictions required by the Montana Department of Transportation (DOT). Flag persons will be provided by the Volpe Center's removal contractor at all times when truck traffic will be crossing Highway 37. This plan will be implemented whenever transport and disposal activities are underway. The Volpe Center's removal contractor will be responsible for all traffic control and sign placement required by the DOT. It is understood that the traffic control plan will be reviewed once transport and disposal activities begin and additional requirements implemented if determined necessary by the DOT and/or the government.

Additionally, the DOT has required that ½-inch steel bearing plates be placed across Highway 37 where the trucks will be crossing from OU2 to Rainy Creek Road. The steel bearing plates will be positioned across the road to help prevent damage to the road surface and edges due to the weight of the trucks. The Volpe Center's removal contractor will install the steel plates every morning during transport and disposal activities and remove them each night. Under no circumstance will the steel plates remain on Highway 37 overnight or when transport and disposal activities are not being performed. Speed limit controls (35 MPH) and proper signage must be utilized at all times during construction and when steel bearing plates are in place.

Libby, Montana

Figure 4-1

Haul Route from KDC Bluff Property to Rainy Creek Road/Screening Plant Map



Truck Route

May 9, 2001

Map Projection UTM Zone 11 NAD27M
USGS Quads from gisdatadepot.com



CDM Federal Programs Corporation

1 Inch = 3000 Feet

3000 0 3000

Section 5 - Air Monitoring

5.1 General

CDM's subconsultant, Pacific Environmental Services, Inc. (PES), will be responsible for planning, coordinating, and conducting air monitoring during all transport and disposal activities. PES will provide all labor, equipment, materials, and incidentals required to perform all perimeter and personnel air monitoring throughout the transport and disposal work at all locations identified in this T&D plan. All air monitoring functions shall meet the applicable OSHA regulations and all government requirements.

Background ambient air samples, ambient air samples during the removal action, and final clearance ambient air samples, will be collected at designated sites during this summer's removal action in Libby, Montana. These sites include the areas known as the Screening Plant, KDC Flyway property, KDC Bluff property, Rainy Creek Road, and the disposal locations at the mine site. Based on the work performed last summer at the Export Facility, PES does not anticipate that the EPA On-Scene Coordinator (OSC) will require daily samples to be collected along Haul Road or Highway 37 while utilizing these roads to transport materials from the KDC Bluff property. However, the EPA OSC may require random sampling along these roads depending upon several factors such as, amount of truck traffic, perimeter sample results, changes in removal activities, citizen concerns, etc.

An addition to ambient air sampling, personal air sampling on the Volpe Center's removal action contractor's workers and truck drivers will be conducted to document compliance with 29 CFR Part 1926.1101. All personal air samples will be collected and analyzed in accordance with 29 CFR 1926.1101.

All air samples will be collected by drawing air through a cellulose acetate filter (0.8 μ m pore size) at a specified flow rate for a specified period of time. The details of the method are provided in EPA SOP 2015. During normal working activities, both ambient and personal air samples will be collected at a flow rate of 2.5 liters per minute (l/min) over an 8-hour sampling period. This results in a total sampling volume of 1,200 liters. However, along Rainy Creek Road and at the disposal sites, battery operated high volume sampling pumps will be utilized to collect a total sampling volume of 4,000 liters per sample. These pumps will be set at a flow rate of approximately 8 l/min over an 8-hour sampling period.

Depending on the sampling conditions, work activities, the level of asbestos in the air, and the level of interfering particles in the air, the flow rate, total sampling time, and/or sampling volume may require modifications. The decision to modify the flow rate, time, or volume will be made by the air monitoring consultant in conjunction with the EPA OSC.

The following paragraphs provide a detailed description of the ambient air sampling that will be conducted at each individual site.

5.2 Screening Plant (OU2)

Background ambient air samples, ambient air samples during the removal action, and final clearance ambient air samples will be collected at six fixed perimeter monitoring locations at OU2. These six locations surround the regulated emergency removal action area. Two locations are located on the northeastern perimeter of the site, two locations along the southwestern perimeter, one on the southeastern perimeter, and one on the northwestern perimeter. The locations will be selected to ensure that airborne asbestos fiber concentrations migrating from the regulated removal action can be determined independent of wind direction or work location. The actual perimeter air sampling locations will be selected in the field and surveyed using a resource-grade GPS instrument.

In addition to the perimeter air samples, additional ambient air samples will be collected depending on the day's work activities. These samples will be collected at locations such as the decontamination chambers, negative air machines, and contractor trailers. The number and location of these additional ambient air samples is being determined by the air monitoring consulting firm, along with the EPA OSC and the Volpe Center. Approximately three additional ambient air samples will be collected per day. These ambient sampling locations will also be selected in the field and surveyed using a resource-grade GPS instrument.

5.3 KDC Flyway Property

Background ambient air samples, ambient air samples during the removal action, and final clearance ambient air samples will be collected at six fixed perimeter monitoring locations at the KDC Flyway property. These six sampling locations surround three sides of this property. The fourth side of the property (northwestern side) is adjacent to the southeastern perimeter of the Screening Plant. (The two perimeter samples collected at the southeastern perimeter of the Screening Plant will also cover the northwestern perimeter of the KDC Flyway property.) Three locations will be on the southeastern perimeter of the property (this perimeter is adjacent to residences), one location along the southwestern perimeter and two along the northeastern perimeter. The actual locations of the perimeter air sampling sites will be selected in the field and surveyed using a resource-grade GPS instrument.

5.4 KDC Bluff Property

Background ambient air samples, ambient air samples during the removal action, and final clearance ambient air samples will be collected at four fixed perimeter monitoring locations at the KDC Bluff property. These four sampling locations surround all four sides of this small area. The air sampling locations will be selected to ensure that airborne asbestos fiber concentrations migrating from the regulated removal action can be determined independent of wind direction or work location.

The actual locations of the perimeter air sampling sites will be selected in the field and surveyed using a resource-grade GPS instrument.

5.5 Rainy Creek Road

The EPA OSC has requested that the air monitoring consultant collect background ambient air samples, ambient air samples during material transport, and final clearance ambient air samples along Rainy Creek Road. The EPA OSC has also requested that these samples be collected from the same sample locations at which preliminary samples were collected during summer 2000. Several sets of ambient air samples were collected from a total of four sampling locations along Rainy Creek Road during summer 2000. These air samples were collected by the EPA Emergency Response Team (ERT). The air monitoring consultant will work with ERT to determine the exact air sampling locations. The locations will be surveyed using a resource-grade GPS instrument. According to the EPA OSC, these locations will be sampled every workday for the first two weeks of material transport and biweekly thereafter.

5.6 Disposal Locations

Background ambient air samples, ambient air samples during the removal action, and final clearance ambient air samples will be collected at three fixed perimeter monitoring locations at the disposal areas at the mine site. These three sampling sites will surround the perimeter of this area. The actual locations of the perimeter air sampling locations will be selected in the field and surveyed using a resource-grade GPS instrument. Much like the samples along Rainy Creek Road, these locations will be sampled every workday for the first two weeks of material transport and biweekly thereafter.

Section 6 - Transportation Activities

6.1 General

All truck drivers and personnel that may come in contact with asbestos-containing materials, must be 40-hour OSHA trained as described in the project health and safety plan. All personnel working on transport and disposal activities will be required to provide proper documentation confirming their 40-hour OSHA training certification is complete and refresher training up to date.

The Volpe Center's removal contractor will be responsible for planning, coordinating and controlling, and performing all transportation activities. This includes, but is not limited to, determining and subcontracting the number of trucks and drivers needed for hauling materials, equipment and operators for loading trucks, covering all loads, equipment and personnel decontamination, dust suppression, disposal operations, Haul Road maintenance, traffic controls including signage, flag persons, and related work. The Volpe Center's removal contractor will determine the number of trucks and drivers needed to complete the work required within the time frame established

by the government. The Volpe Center's removal contractor will be responsible for performing the transport and disposal activities in a safe manner while adhering to the requirements of this T&D plan and the project health and safety plan. The Volpe Center's removal contractor may adjust the number of trucks and drivers working on the transport and disposal activities as necessary to minimize down time or standby time.

Trucks transporting materials to the mine site will not be weighed for purposes of determining quantities of asbestos-containing soil and other materials being disposed at the mine site. The Volpe Center's removal contractor shall be responsible for counting the trucks traveling to the disposal locations and estimating the quantities of asbestos-containing soils and other materials being disposed. The Volpe Center's removal contractor will conduct the transport operations in compliance with all Montana DOT requirements, including load limits.

6.2 Loading

The Volpe Center's removal contractor shall load all trucks in a manner that does not produce visible dust and is in compliance with all air monitoring levels established by the government for this project. Materials to be disposed shall be sorted into two categories of materials. Asbestos-containing soils will be loaded at the removal site or at the OU2 staging area for transport to the disposal locations designated to receive asbestos-containing soils. Loads of asbestos-containing soil shall not be mounded. Truck loads shall be limited to an amount that allows complete covering of the load and spillage on bumpy road does not occur. All other materials, such as demolition debris, metals, concrete, asphalt pavement, tree cuttings and stumps, and personal protective equipment shall be loaded at the removal site or at the OU2 staging area for transport to the disposal locations designated to receive this category of material. Demolition debris and other materials loaded into trucks shall be reduced to a size that allows each truck load to be fully and completely covered and the material can be graded to the slopes and contours required by the government at the disposal locations. It is required that water misting employed by the Volpe Center's removal contractor to control dust emissions during truck loading operations and truck travel from loading areas to the equipment decontamination facilities. In the event that waste misting does not meet the required air emissions, the removal contractor will stop loading trucks and propose new control measures for approval by the government.

6.3 Covering Loads

The Volpe Center's removal contractor shall cover all loaded trucks in a manner such that no visible or detectable dust emissions are generated during transport along Highway 37, Haul Road, Rainy Creek Road or any other roadways traveled during the execution of the project. All loaded trucks traveling public or private roads, shall be tightly covered with canvas or other durable and tear-proof material in a manner

such that dust emissions are not visible or detectable from the trucks at any time during the trip to OU2 or to the disposal locations at the mine site. Truck covers will extend a minimum of one foot below the top of the truck body and be secured to the truck body with elastic tie down straps. Torn or damaged truck covers will be immediately replaced by the Volpe Center's removal contractor. Each truck cover will be checked by the removal contractor for condition and fit on this truck prior to the truck leaving a removal site or the OU2 staging area. The Volpe Center's removal contractor may propose alternative methods to prevent dust emissions from trucks, however any such alternatives shall require approval by the government prior to their use.

6.4 Dumping

The Volpe Center's removal contractor shall coordinate the disposal activities at the designated disposal areas at the mine site. Dumping contents of trucks shall be performed in a manner such that there are no visible or detectable dust emissions. Areas where disposal takes place will be sprayed with water to prevent dust emissions. Areas with dust emissions shall be sprayed with water until dust levels drop to acceptable levels as required by the government and do not endanger or impede the performance of personnel working in the area.

6.5 Dust Suppression on Rainy Creek Road

Dust suppression is a primary concern with respect to transport and disposal activities on this project. The lower one-half mile of Rainy Creek Road will be asphalt paved. Trucks and other equipment leaving the mine site will be decontaminated at the Rainy Creek decontamination facility and proceed on the paved portion of Rainy Creek Road to Highway 37. The primary method of dust control will utilize a magnesium chloride and water mix. The Volpe Center's removal contractor will be required to provide an adequate water supply and a sufficient number of water trucks and drivers to keep Rainy Creek Road free from visible and detectable dust emissions at all times when transport activities are underway. Water truck drivers will be required to meet the same OSHA health and safety requirements as drivers of trucks hauling asbestos-containing soils and other materials. Dust suppression measures will be conducted in compliance with the requirements established by the Montana DOT, the government, and in the approved project health and safety plan.

Section 7 - Disposal Site Management

7.1 Staffing

The Volpe Center's removal contractor shall be responsible for the coordination and planning of disposal activities at the mine site with transport activities. The Volpe Center's removal contractor shall provide staff equipped with two-way communication to the trucks so that traffic runs smoothly and efficiently throughout the entire operation. The Volpe Center's removal contractor will have representatives

at the disposal locations to direct trucks to the appropriate disposal site. A sufficient number of workers shall be employed to provide adequate water for dust suppression at the disposal sites and the upper end of the haul route and directing truck traffic and other subcontractors throughout the operation.

7.2 Water Supply

The Volpe Center's removal contractor will be responsible for supplying adequate water supplies at the mine site, along Rainy Creek Road, at the decontamination facility on Rainy Creek Road and all removal locations. Prior to using any water supply, it will need to be sampled and analyzed to determine that it is free of contaminants and meet MCLs.

7.3 Disposal Site Procedures

The Volpe Center's removal contractor will coordinate all traffic flow at the disposal locations. Traffic flow includes the loading, transport, disposal, and departure of empty trucks so that each category of material is disposed at the disposal location designated by EPA to receive that particular category of material. Mixing of waste types will not be permitted. Materials are to be sorted at the loading location so that disposal at the proper location at the mine site is direct and efficient. Removal contractor personnel shall direct each truck to the proper disposal location, direct the physical dumping of each truck load, provide acceptable dust suppression, and provide the front end loaders, bulldozers and other mechanical equipment, and operators to grade the disposed materials to the contours required by the government on a daily basis or more frequently. Materials to be disposed shall first be dumped and graded at the primary disposal location for that waste category. Once the primary disposal location has reached capacity, the secondary disposal location will be used.

Figure 2-1 shows that locations the primary and secondary disposal locations. Asbestos-containing soils shall be placed in 2-foot lifts maximum and compacted by bulldozers traveling back and forth over each lift. Demolition and other debris shall be placed in 2-foot lifts maximum and consolidated and compacted by bulldozers traveling back and forth over each lift to achieve results satisfactory to the government. Compaction tests will not be performed. The limits of each disposal area shall be identified by CDM Federal personnel assisted by the removal contractor, using GPS equipment. Side slopes of each disposal location shall not exceed 3 horizontal to 1 vertical. Once capacity has been reached at a disposal site, common fill acceptable to the government will be placed in two 1-foot lifts and compacted as described above. Final cover will be 6 inches of topsoil approved by the government with hydroseeding the entire covered area. Removal contractor will maintain the disposal site for one year or until the seeded areas have been fully established and no erosion is observed.

The removal contractor shall provide an adequate water supply and a sufficient number of water trucks and drivers, laborers and equipment to keep the disposal locations free from visible and detectable dust emissions at all times when transport and disposal activities are underway. Water truck drivers and all workers at the disposal locations will be required to meet the project's OSHA health and safety requirements. Dust suppression measures will be conducted in compliance with the requirements established by the Montana DOT, the government and in the approved project health and safety plan.

The two categories of waste materials designated for this operation are:

1. Asbestos-containing soils
2. All other materials including, but not limited to, steel and other metals, demolition debris, concrete, asphalt pavement, tree cuttings and stumps, and personal protective equipment

Daily cover will not be placed at the disposal sites. The Volpe Center's removal contractor will be required to provide 6 inches of cover soil over disposal locations when transport and disposal operations are suspended for holiday periods or other reasons. Intermittent cover material shall meet the requirements of common fill as specified for use as backfill at the various soil removal locations in Libby.

7.5 Security

A security guard will be on duty at all times transport and disposal operations are not being performed. At the end of each day, one security guard will be on duty at OU2 and the lower gate on Rainy Creek Road at Highway 37. The guard on night duty and Sunday duty will divide his or her time between watching the gate at Rainy Creek Road and OU2.